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LYMMO BRT: 15 Years Later

JUNE 2013

FTA Report No. 0042
Federal Transit Administration

PREPARED BY
Brian Pessaro, AICP
Martin Catalá

National Bus Rapid Transit Institute
Center for Urban Transportation Research
University of South Florida



U.S. Department of Transportation
Federal Transit Administration

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|--|----------------------|-----------------------------|--------------------------------|----------------|
| LENGTH | | | | |
| in | inches | 25.4 | millimeters | mm |
| ft | feet | 0.305 | meters | m |
| yd | yards | 0.914 | meters | m |
| mi | miles | 1.61 | kilometers | km |
| VOLUME | | | | |
| fl oz | fluid ounces | 29.57 | milliliters | mL |
| gal | gallons | 3.785 | liters | L |
| ft³ | cubic feet | 0.028 | cubic meters | m ³ |
| yd³ | cubic yards | 0.765 | cubic meters | m ³ |
| NOTE: volumes greater than 1000 L shall be shown in m ³ | | | | |
| MASS | | | | |
| oz | ounces | 28.35 | grams | g |
| lb | pounds | 0.454 | kilograms | kg |
| T | short tons (2000 lb) | 0.907 | megagrams (or "metric ton") | Mg (or "t") |
| TEMPERATURE (exact degrees) | | | | |
| °F | Fahrenheit | 5 (F-32)/9 or (F-32)/1.8 | Celsius | °C |

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ABSTRACT

LYMMO bus rapid transit (BRT) service began in August 1997 in Orlando, Florida, as one of the first bus-based premium downtown circulators in the United States. This report is a follow-up of the initial evaluation conducted in 2003. Average daily ridership on LYMMO has fallen three years in a row since 2010, and 2012 ridership was lower than the opening year ridership. The drop in ridership is partially attributable to a 15 percent loss in jobs located within a ¼ mile of LYMMO between 2002 and 2010. LYMMO, nevertheless, continues to rank as one of LYNX Transit's top five routes. It has also outperformed several rail streetcar systems in the U.S. in annual passenger trips and cost per trip. LYMMO continues to be rated highly by passengers, scoring a 4.5 out of 5 in overall customer satisfaction. Fifteen percent of downtown Orlando employers said in a survey that LYMMO was a factor in their decision to remain downtown. A majority agreed that LYMMO contributed to the economic development of downtown, made downtown a more attractive place to live and work, and improved mobility in downtown.

EXECUTIVE SUMMARY

LYMMO bus rapid transit service began in August 1997 in Orlando, Florida, as one of the first bus-based premium downtown circulators in the U.S. Its construction was funded, in part, by the Federal Transit Administration's (FTA's) Bus Rapid Transit (BRT) Demonstration Program. It is operated by LYNX Transit. The National Bus Rapid Transit Institute at the University of South Florida's Center for Urban Transportation Research evaluated LYMMO in 2003. This 2013 report revisits some of the measures from the 2003 report to see how LYMMO is faring today.

At its opening in 1997, LYMMO's average weekday ridership exceeded the projections. On average, it carried 3,091 riders each weekday in 1997. The projection was 2,680 riders. However, the ridership plateaued by 1998 and remained fairly constant until 2010 when it began to drop. Average weekday ridership fell in 2010, 2011, and 2012. Average weekday ridership in 2012 was 3,017 riders, which is lower than the first year of operation. The ridership trend on LYMMO does not match the trend on the rest of LYNX's service, on which annual boardings have been increasing steadily since 1997. Nevertheless, LYMMO is still one of the LYNX's highest ridership routes, ranking 5th out of 55 fixed routes. LYMMO also outperforms several rail streetcar systems in the U.S. that are of similar length in terms of both annual passengers and cost per passenger trip (see Table 3-3).

Several things may have contributed to the drop in ridership that began in 2010. In 2010, the Amway Arena, which housed the Orlando Magic NBA basketball team, closed, thereby eliminating riders for special events. Also in 2010, the Orange County Courthouse stopped validating parking for jurors using the CentroPlex parking garage, which is also the terminus for LYMMO. Jurors at that time comprised nine percent of riders; in the most recent survey, they comprise only one percent. The economic recession has likely had a negative impact on LYMMO ridership as well. From 2002 to 2010, there was an 18 percent drop in the total number of jobs within the 1/4-mile buffer of the LYMMO route. This contrasts with a 5 percent increase in jobs in the Orlando Urbanized Area as a whole. The drop in ridership since 2010 has led to higher operational and maintenance (O&M) costs per passenger trip. Although the annual O&M cost increased only two percent between 1998 and 2012, the O&M cost per passenger trip increased 30 percent.

The location distribution of boardings and alightings has shifted since the 2003 report. In 2003, the boardings and alightings were fairly evenly distributed along the route, and they generally dropped off in number once the bus was south of E. Central Boulevard. In 2012, LYNX Central Station and the Orange County Public Library were the top two boarding and alighting locations, accounting respectively for 27 and 24 percent of all boardings and alightings.

In the latest 2012 survey of LYMMO riders, a smaller percentage use LYMMO to get to work compared to the previous (2001) survey. However, more riders now are using it for lunch, errands, and shopping. The percentage of riders that use LYMMO to get to/from jury duty fell from nine percent to one percent. In both the 2001 and 2012 surveys, 54 percent said they use LYMMO at least twice a day. The percentage of riders who use it four or more times a day has increased from 13 to 21 percent. Overall rider satisfaction remains high. On a scale of 1 to 5, the mean score for rider satisfaction was 4.5 (satisfied). More than 76 percent of riders think LYMMO has reduced congestion in downtown Orlando, and nearly 80 percent think LYMMO has made downtown Orlando a more attractive place to live and work.

In a mailed survey of employers located near LYMMO, only 34 out of 711 responded; the response rate (5%) is too small to be statistically conclusive. Therefore, the responses are provided only for illustrative purposes. Three of the 34 employers (9%) said LYMMO was a factor in their decision to locate downtown. Five of the employers (15%) said LYMMO is a factor in their decision to remain downtown. A total of 53 percent agreed or strongly agreed with the survey statement that LYMMO has contributed to the economic development of downtown, and 59 percent agreed or strongly agreed that LYMMO made downtown a more attractive place to live and work. A wider margin (73%) agreed or strongly agreed with the statement that LYMMO has improved mobility in downtown.

LYNX Transit is planning to expand LYMMO into several new corridors, with two new LYMMO lines expected to open in Spring 2014. All of the new LYMMO lines will connect with the existing LYMMO line and the SunRail commuter rail line, which is scheduled to open in early 2014. The new LYMMO lines will tap new ridership by serving new destinations such as the planned Creative Village, the Amway Center, Florida A&M College of Law, the State of Florida Office Complex, the U.S. Courthouse, Florida Hospital, and the Orlando Regional Medical Center. Given the fact that the ridership on LYMMO plateaued soon after opening, expanding LYMMO into new corridors to tap new riders appears to be timely.

Background

LYMMO bus rapid transit (BRT) service began in August 1997 as one of the first bus-based premium downtown circulators in the U.S. The transit operator is LYNX Transit. Prior to LYMMO, the Orlando Central Business District was served by two other bus circulators. The Meter Eater was introduced in 1983 and charged a fare of \$0.25. It was replaced in 1984 by the FreeBee, which was free to riders; its operations were funded through city parking revenues. In 1989, the City of Orlando purchased a vintage 1907 streetcar and renovated it in anticipation of developing a streetcar system. The Orlando Streetcar, dubbed OSCAR for short, never materialized as a system because the initial cost estimates skyrocketed from \$12 million to \$50 million.¹ Consequently, the City of Orlando and LYNX switched plans from rail to a bus-based alternative, and what resulted was LYMMO. When LYMMO opened in 1997, it was characterized by many features that distinguished it from the rest of LYNX's buses—a separate lane with extensive signage and pavement painting, specialized paving and hardscape, extensive landscaping, specialized paint scheme and shelters, a separate logo for signs and stops, free service, and very short headways.

LYMMO operates in a dedicated bus lane on a 2½-mile loop. A map of the route is shown in Figure I-1. There are 13 stations and 8 signed stops, and service is every 5 minutes throughout most of the day and every 10 minutes in the evenings. LYMMO operates 185 trips (loops) Monday–Thursday, 200 trips Friday, 85 trips Saturday, and 65 trips Sunday, with service hours of 6:00 AM to 10:00 PM Monday–Thursday, 6:00 AM to 12:00 midnight Friday, 10:00 AM to 12:00 midnight Saturday, and 10:00 AM to 10:00 PM Sunday. The LYMMO fleet consists of nine 35-foot hybrid electric Gillig buses.

¹ “Oscar, The Electric Streetcar that came from Brazil,” Orlando Sentinel, August 17, 1997, http://articles.orlandosentinel.com/1997-08-17/news/9708150220_1_streetcar-downtown-orlando-oscar.

Figure 1-1
LYMMO Route



Source: LYNX Transit

SECTION
2

Operational Expenses

Revenue for the operations and maintenance of LYMMO comes from the City of Orlando's Parking and Enterprise Fund. The operations and maintenance (O&M) costs of LYMMO have remained steady over the years, at about \$1.2 million annually. However, since ridership began falling in 2010, O&M costs per passenger trip have been rising. Although LYMMO's annual O&M cost has risen PM 2 percent between 1998 (the first full year of operation) and 2012, the cost per passenger trip has risen 30 percent.

Table 2-1
LYMMO Operational Costs

| Year | Total O&M Cost | Passenger Trips | O&M Cost per Passenger Trip |
|------|----------------|-----------------|-----------------------------|
| 1998 | \$1,209,867 | 1,137,938 | \$1.06 |
| 1999 | \$1,237,389 | 1,135,736 | \$1.09 |
| 2000 | \$1,076,318 | 1,134,275 | \$0.95 |
| 2001 | \$1,221,121 | 1,068,781 | \$1.14 |
| 2002 | \$1,113,535 | 1,055,589 | \$1.05 |
| 2003 | \$1,089,135 | 1,118,268 | \$0.97 |
| 2004 | \$1,207,562 | 1,041,093 | \$1.16 |
| 2005 | \$1,366,136 | 1,184,090 | \$1.15 |
| 2006 | \$1,231,434 | 1,198,417 | \$1.03 |
| 2007 | \$1,267,583 | 1,170,189 | \$1.08 |
| 2008 | \$1,181,126 | 1,152,670 | \$1.02 |
| 2009 | \$1,150,674 | 1,256,074 | \$0.92 |
| 2010 | \$1,192,358 | 1,190,029 | \$1.00 |
| 2011 | \$1,283,248 | 950,941 | \$1.35 |
| 2012 | \$1,233,671 | 894,340 | \$1.38 |

Nevertheless, the operational expense per passenger trip on LYMMO is low compared to the operational expense per passenger trip system-wide on LYNX. Using the most recent data from the National Transit Database (NTD)(2011), the cost per passenger trip system-wide on LYNX was \$3.12 (see Table 2-2).

Table 2-2
Operational Cost Comparison, 2011

| Service | Total O&M Cost | Cost per Trip |
|------------------|----------------|---------------|
| LYMMO | \$1,283,248 | \$1.35 |
| LYNX System-wide | \$84,196,278 | \$3.12 |

Note: System-wide data does not include demand response or vanpool.

SECTION
3

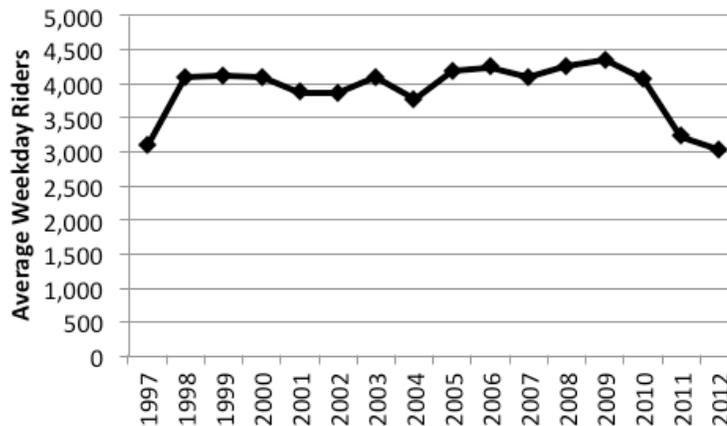
Ridership

At the time of the 2003 evaluation, average weekday ridership on LYMMO was just over 4,000 riders. It peaked in 2009 at just over 4,300 riders. Ridership began to drop in 2010. Average weekday ridership in 2012 was 3,017 riders, which is lower than what it was in 1997. Table 3-1 shows the average weekday ridership from 1997–2012. Figure 3-1 shows the same data in graph form. A more detailed table of the ridership (average weekday, Saturday, Sunday, and monthly totals) can be found in Appendix A.

Table 3-1
LYMMO Average Weekday Riders, 1997–2012

| Year | Average Weekday Riders |
|------|------------------------|
| 1997 | 3,091 |
| 1998 | 4,092 |
| 1999 | 4,112 |
| 2000 | 4,101 |
| 2001 | 3,876 |
| 2002 | 3,869 |
| 2003 | 4,097 |
| 2004 | 3,763 |
| 2005 | 4,192 |
| 2006 | 4,246 |
| 2007 | 4,096 |
| 2008 | 4,261 |
| 2009 | 4,352 |
| 2010 | 4,067 |
| 2011 | 3,228 |
| 2012 | 3,017 |

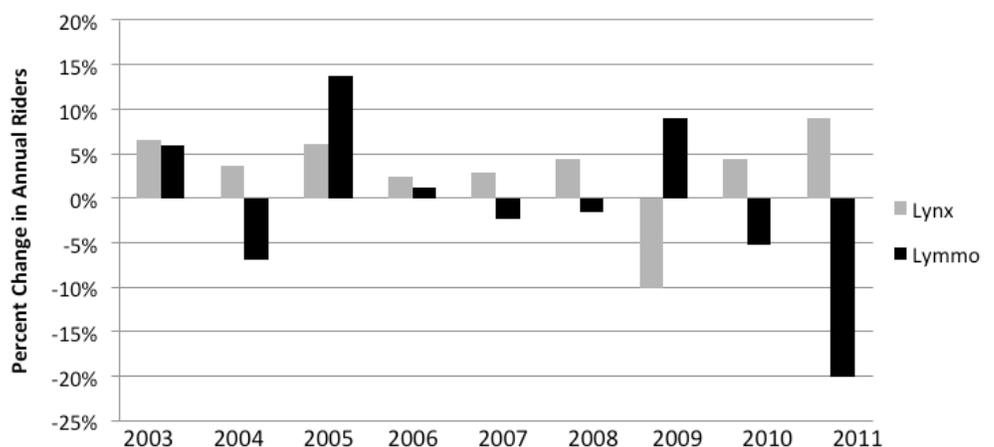
Figure 3-1
LYMMO Average Weekday Riders, 1997–2012



The drop in ridership in 2004 was likely due to service interruptions caused by the construction of LYNX Central Station. In regards to the drop in ridership that has occurred since 2010, there are two probable contributing factors. In 2010, the Orange County Courthouse stopped paying for juror parking at the CentroPlex garage; jurors now park in the garage immediately adjacent to the courthouse. This led to a drop in the number of juror trips on LYMMO. The latest passenger survey data confirms this. In the 2001 survey, nine percent of LYMMO riders said their trip purpose was jury duty; in the 2012 survey, it was 1 percent. The other change that occurred in 2010 was the closing of the Amway Arena, the home of the Orlando Magic NBA basketball team, and the subsequent opening of the Amway Center further to the south and away from LYMMO's route. This resulted in a loss of riders for special events. It should be pointed out that the new East-West LYMMO, which is expected to open in the fall of 2013, will provide service to Amway Center.

LYMMO ridership was compared to system-wide ridership on all of LYNX's directly-operated bus service to see if the trends were the same or different. Figure 3-2 compares the percent change in annual riders since the time of the last evaluation in 2003 to 2011. The figure shows that the trends are not the same. Although LYNX registered percentage gains each year except one (2009), LYMMO registered percentage gains in only four of the nine years. In the 2011, the number of annual riders on LYNX system-wide was up 9 percent and on LYMMO it was down 20 percent.

Figure 3-2
Percent Change in
Annual Riders,
LYMMO vs. LYNX



Despite the drop in ridership, LYMMO still ranks in the top five of LYNX's fixed routes. According to LYNX's 2013 Transit Development Plan (TDP), LYMMO had the 5th highest ridership of 55 fixed-route links.

Table 3-2
*LYNX Fixed-Route
Performance Statistics*

| Rank | Link # | Description | Total Passengers, FY 2011 |
|------|--------|---------------------------------------|------------------------------|
| 1 | 8 | W. Oak Ridge Road/International Drive | 2,353,273 |
| 2 | 4 | S. US 441/Kissimmee | 1,919,355 |
| 3 | 41 | SR 436 Crosstown | 1,829,884 |
| 4 | 37 | Park Promenade Plaza/Florida Mall | 1,076,565 |
| 5 | 31 | LYMMO | 1,016,207 |

Source: LYNX Transit Development Plan 2013–2022

Although classified as a BRT system, LYMMO is more comparable to a downtown streetcar circulator. Table 3-3 compares LYMMO to several rail streetcars in the U.S. that are of similar length. LYMMO carried more passengers in 2011 than three of the four streetcar systems and had a lower cost per trip than all four rail streetcar systems.

Table 3-3 *Comparison of LYMMO to Rail Streetcar Systems*

| Service | Annual Passenger Trips | Annual Operating Expense | Cost per Trip | Vehicles Available for Max Service | Vehicles Operating in Max Service | Route Miles |
|-------------------|------------------------|--------------------------|---------------|------------------------------------|-----------------------------------|-------------|
| LYMMO | 950,941 | \$1,283,248 | \$1.35 | 9 | 7 | 2.5 |
| Memphis Streetcar | 1,086,125 | \$4,796,905 | \$4.42 | 16 | 12 | 4.7 |
| Seattle Streetcar | 714,461 | \$2,396,642 | \$3.35 | 3 | 3 | 2.5 |
| Tampa Streetcar | 431,425 | \$2,209,652 | \$5.12 | 10 | 4 | 2.7 |
| Kenosha Streetcar | 43,249 | \$443,489 | \$10.25 | 5 | 1 | 1.7 |

Source: National Transit Database 2011

Boardings and Alightings

Figure 4-1 compares the geographic distribution of LYMMO's boardings and alightings for 2003 and 2012. The green circles represent 2003 data, and the purple circles represent 2012. The same data are provided in tabular format in Appendix B. In 2003, the boardings and alightings were fairly evenly distributed along the route, and they generally dropped off in number once the bus was south of E. Central Boulevard. In 2012, LYNX Central Station and the stop at Magnolia Avenue and E. Central Boulevard were the top two boarding and alighting locations, with the former accounting for 27 percent of all boardings and alightings and the latter for 24 percent. Magnolia Avenue and E. Central Boulevard is the site of the Orange County Public Library and is also the stop with quickest access to many lunch-time establishments just two blocks west on S. Orange Avenue. The percentage of boardings and alightings at the CentroPlex Parking Garage dropped from 14 percent to 11 percent. The percentage of boardings and alightings at the Orange County Courthouse remained roughly the same at 12 percent. This may be an indicator that although fewer jurors are using LYMMO to get to the courthouse from the CentroPlex Garage, they are still using it during midday for lunch and errands.

Figure 4-1
LYMMO Boardings
and Alightings



SECTION
5

Employment Data

Employment was examined using U.S. Census Longitudinal Employer Household Dynamics (LEHD) datasets for 2002 and 2010. The year 2002 was used as the baseline because it is the oldest available dataset. For the analysis, LEHD job data were retrieved for all census blocks located within a ¼-mile buffer of the LYMMO route. This was done for both the 2002 and 2010 datasets. Table 5-1 shows the results broken down by North American Industry Classification System (NAICS) Code. In both 2002 and 2010, 70 percent of the jobs located within ¼ mile of LYMMO came from three industries: Public Administration; Professional, Scientific, and Technical Services; and Administrative/Support/Waste Management/Remediation Services.

As shown in Table 5-1, there was an 18 percent drop in the total number of jobs between 2002 and 2010. Every industry category lost jobs except three. Arts, Entertainment, and Recreation increased 581 percent. Other Services (Except Public Administration) increased 102 percent, and Retail Trade increased 82 percent. These changes are shown graphically in Figures 5-1 and 5-2. The most notable area where the decrease in jobs occurred was around Lake Eola.

Table 5-1 Industries within ¼ Mile of LYMMO Route

| Industry | No. of Jobs, 2002 | No. of Jobs, 2010 | Percent Change |
|---|-------------------|-------------------|----------------|
| Utilities | 1,358 | 1,314 | -3% |
| Construction | 151 | 119 | -21% |
| Manufacturing | 323 | 79 | -76% |
| Wholesale Trade | 396 | 273 | -31% |
| Retail Trade | 348 | 632 | 82% |
| Transportation and Warehousing | 196 | 81 | -59% |
| Information | 1,509 | 961 | -36% |
| Finance and Insurance | 2,838 | 2,474 | -13% |
| Real Estate and Rental and Leasing | 1,369 | 729 | -47% |
| Professional, Scientific, and Technical Services | 8,265 | 7,474 | -10% |
| Management of Companies and Enterprises | 522 | 201 | -61% |
| Administrative/Support/Waste Mgt/Remediation Svcs | 7,773 | 3,681 | -53% |
| Educational Services | 376 | 278 | -26% |
| Health Care and Social Assistance | 854 | 734 | -14% |
| Arts, Entertainment, and Recreation | 58 | 395 | 581% |
| Accommodation and Food Services | 2,293 | 1,807 | -21% |
| Other Services (Except Public Administration) | 340 | 687 | 102% |
| Public Administration | 14,640 | 13,888 | -5% |
| Total Jobs | 43,609 | 35,807 | -18% |

Figure 5-1
Jobs within ¼ Mile of
LYMMO, 2002

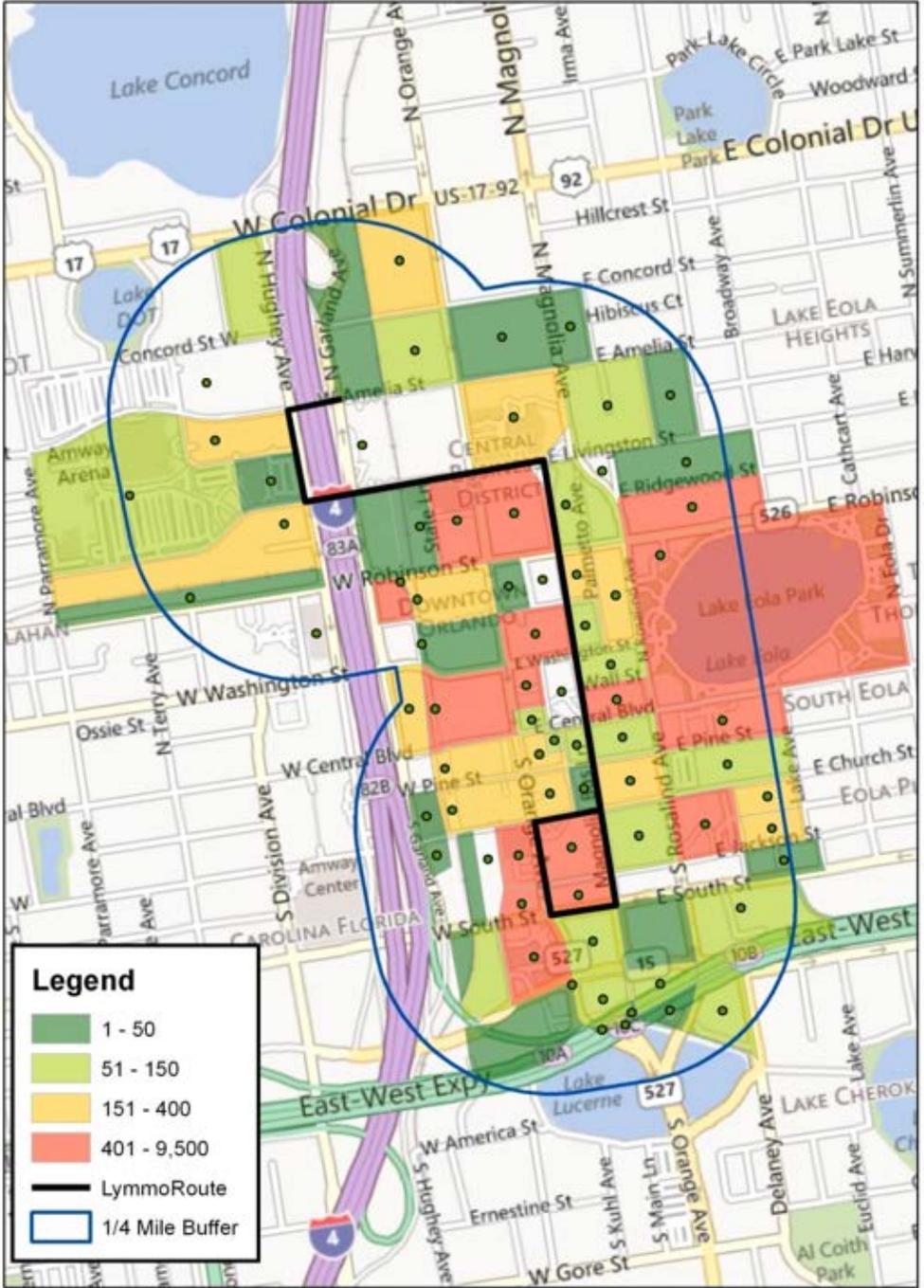
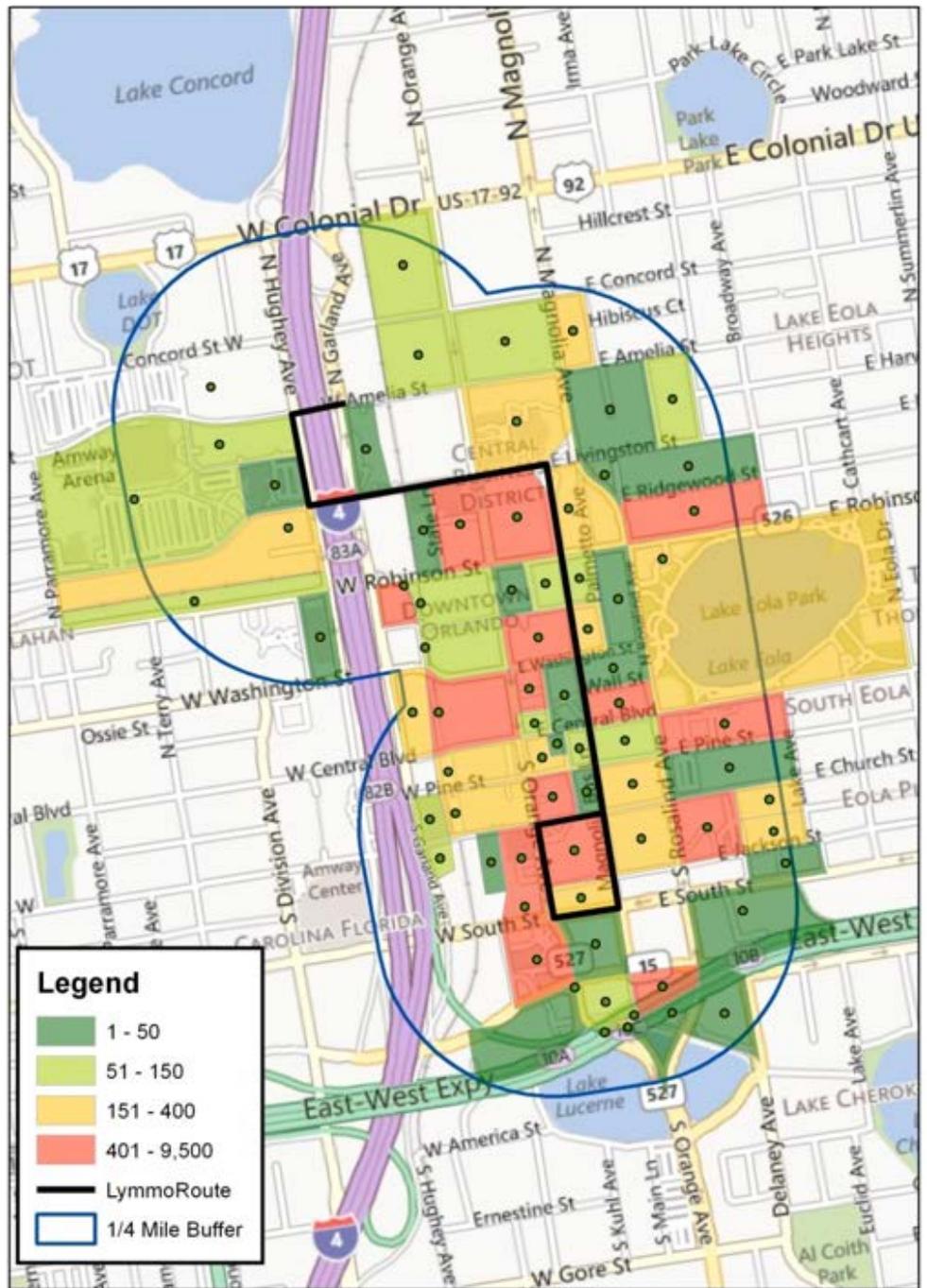


Figure 5-2
Jobs within ¼ Mile of
LYMMO, 2010



The 18 percent drop in jobs located within ¼ mile of LYMMO contrasts with a 5 percent growth in jobs experienced in the Orlando Urbanized Area as a whole (see Table 5-2). Five percent growth over an eight-year period is fairly weak and reflects the economic recession that began in 2007. It appears that the economic recession hit jobs in the downtown core of Orlando more than the urbanized area as a whole. This likely had a negative impact on LYMMO ridership.

Table 5-2 *Industries within Orlando Urbanized Area*

| Industry | No. of Jobs, 2002 | No. of Jobs, 2010 | Percent Change |
|---|-------------------|-------------------|----------------|
| Agriculture, Forestry, Fishing and Hunting | 4,111 | 2,885 | -30% |
| Mining, Quarrying, and Oil and Gas Extraction | 27 | 68 | 152% |
| Utilities | 3,449 | 2,938 | -15% |
| Construction | 41,987 | 34,592 | -18% |
| Manufacturing | 43,778 | 32,420 | -26% |
| Wholesale Trade | 36,572 | 34,693 | -5% |
| Retail Trade | 81,654 | 85,646 | 5% |
| Transportation and Warehousing | 26,748 | 24,666 | -8% |
| Information | 22,789 | 21,441 | -6% |
| Finance and Insurance | 29,647 | 30,112 | 2% |
| Real Estate and Rental and Leasing | 18,952 | 22,611 | 19% |
| Professional, Scientific, and Technical Services | 50,501 | 57,572 | 14% |
| Management of Companies and Enterprises | 8,918 | 11,831 | 33% |
| Administrative/Support/Waste Mgt/Remediation Svcs | 75,358 | 75,542 | 0% |
| Educational Services | 51,132 | 52,419 | 3% |
| Health Care and Social Assistance | 75,563 | 91,882 | 22% |
| Arts, Entertainment, and Recreation | 61,703 | 62,713 | 2% |
| Accommodation and Food Services | 81,141 | 101,424 | 25% |
| Other Services (Except Public Administration) | 21,613 | 23,232 | 7% |
| Public Administration | 28,622 | 33,803 | 18% |
| Total Jobs | 764,265 | 802,490 | 5% |

SECTION
6

Rider Survey

An on-board survey of LYMMO riders was conducted on Tuesday, November 27, and Wednesday, November 28, 2012. On the 27th, the survey was conducted in the afternoon from 1:30–5:30 PM; on the 28th, the survey was conducted in the morning from 7:30 AM to 1:30 PM. Five surveyors from the Center for Urban Transportation Research (CUTR) rode five of the buses and distributed the surveys to all passengers as they boarded; a total of 1,011 surveys were returned. Total LYMMO ridership on November 27 was 2,745, and total LYMMO ridership on November 28 was 2,326 for a two-day average of 2,536 riders. Using that figure yielded a response rate of 39.9 percent. The margin of error in the survey is + 2.4 at the 95% confidence level. The questionnaire used for the survey can be found in Appendix B. The questionnaire was kept to six questions because the passengers board and alight over short distances. The questionnaire used many of the same questions from the December 2001 survey that was included in the 2003 evaluation report. In the tables that follow, the 2012 survey results are expressed both in percentage and absolute numbers. For the 2001 survey results, only the percentages were available. The results are shown in the order they appeared on the questionnaire.

What is the primary purpose of this trip today?

A greater percentage of riders now use LYMMO for errands, lunch, and shopping compared to 2001 (41% in 2012 vs. 17% in 2001), and a smaller percentage use it to go to work (36% in 2012 vs. 52% in 2001). There also has been a drop in the percentage of riders using LYMMO to get to jury duty (1% 2012 vs. 9% in 2001). In 2001, the Orange County Courthouse validated the parking for jurors who used the CentroPlex parking garage at the north end of LYMMO’s route. Jurors would park their cars at the garage and ride LYMMO to the courthouse. The Orange County Courthouse stopped validating juror parking at the CentroPlex garage in 2010 when jurors were able to park at the newly-constructed Courthouse Garage.

Table 6-1
Primary Trip Purpose

| Trip Purpose | 2001 Survey | 2012 Survey |
|--------------------|-------------|-------------|
| Work | 52% | 36% |
| Lunch/shop/errands | 17% | 41% |
| Jury duty | 9% | 1% |
| Event at Arena | 2% | n/a |
| School | n/a | 4% |
| Library | n/a | 3% |
| Other | 21% | 15% |

Results may not add to 100% due to rounding.

How often do you ride LYMMO?

In both 2001 and 2012, 54 percent of the riders said they used LYMMO at least twice a day. The percentage of riders who use it four or more times a day increased, and the percentage of first time riders decreased.

Table 6-2
Frequency of Use

| Response | 2001 Survey | 2012 Survey |
|------------------------------|-------------|-------------|
| 4 or more times per day | 13% | 21% |
| 2 or 3 times per day | 41% | 33% |
| Once a day | 10% | 10% |
| A few times per week | 15% | 20% |
| A few times per month | 8% | 9% |
| A few times per year | 7% | 4% |
| This is my first time riding | 8% | 2% |
| Total | 100% | 100% |

Results may not add to 100% due to rounding.

Please rate your satisfaction of the following aspects of LYMMO service.

Riders in 2001 and 2012 were asked to rate several aspects of LYMMO service on a scale of 1 to 5, with 1 being very dissatisfied and 5 being very satisfied. Customer satisfaction was high in 2001 and remained high in 2012. It was not possible to conduct a statistical comparison of means between the two datasets since the 2001 raw survey data are no longer available.

Table 6-3
Service Ratings

| Aspect of Service | 2001 Survey Mean | 2012 Survey Mean |
|----------------------|------------------|------------------|
| Travel time | 4.48 | 4.52 |
| Reliability | 4.47 | 4.50 |
| Comfort | 4.41 | 4.44 |
| Safety | 4.41 | 4.42 |
| Overall satisfaction | 4.45 | 4.49 |

What are your three favorite features of LYMMO?

In the 2001 survey, the top three LYMMO features according to riders were the low-floor vehicles, the vehicle interior, and the electronic information at the stations. In the 2012 survey, the top three features were that it is free to ride, it is easy to use, and the service is frequent. The results could mean two things—either the riders do not think the vehicles are as nice as they used to be or they have simply become more focused on other features. It is unlikely that it is the former. In 2010, LYNX updated the LYMMO fleet with new 35-foot Gillig hybrid electric buses. These buses include a distinctive green and gray color scheme; an example is shown in Figure 6-1. It seems more likely that bus riders in 2012 are

not as impressed with low-floor buses because they are more common now than they were in 2001; consequently, their attention has shifted to the quality of the service—namely, that LYMMO is free, easy to use, and frequent. Another reason for the change in response between 2001 and 2012 is that the stations no longer offer electronic information.

Table 6-4
Riders' Favorite Features of LYMMO, 2001 Survey

| Feature | Percent |
|-----------------------------------|---------|
| Low-floor vehicles | 35% |
| Vehicle interior | 15% |
| Electronic info at stations | 11% |
| Environmentally-friendly vehicles | 7% |
| Feature of stops/stations | 8% |
| Frequency of vehicles | 6% |
| On-board video info displays | 5% |
| It's easy to use | 4% |
| It's free to ride | 4% |
| Fast travel time | 4% |
| Public art and system design | 2% |

Results may not add to 100% due to rounding.

Table 6-5
Riders' Favorite Features of LYMMO, 2012 Survey

| Feature | Frequency | Percent |
|--------------------|-----------|---------|
| It's free to ride | 729 | 28% |
| It's easy to use | 582 | 23% |
| Frequent service | 558 | 22% |
| Dedicated bus lane | 330 | 13% |
| Station design | 119 | 5% |
| Vehicle interior | 118 | 5% |
| Low floor vehicles | 88 | 3% |
| Station kiosks | 44 | 2% |

Results may not add to 100% due to rounding.

Figure 6-1
35-Foot Gillig Hybrid Bus



Perceptions regarding LYMMO's influence on downtown traffic congestion

Riders in the 2012 survey were asked the extent to which they agreed or disagreed with the statement that LYMMO reduces congestion in downtown Orlando. While it does not answer whether LYMMO does, in fact, do this, it does measure rider perceptions. The results show that 76 percent do think that LYMMO has reduced congestion in downtown Orlando.

Table 6-6
LYMMO has reduced congestion in downtown Orlando

| Strongly Agree | | Agree | | No Opinion | | Disagree | | Strongly Disagree | |
|----------------|-----|-------|-----|------------|-----|----------|----|-------------------|----|
| 405 | 42% | 327 | 34% | 189 | 20% | 23 | 2% | 14 | 2% |

Perceptions regarding LYMMO's influence on quality of life in downtown

A total of 79 percent of the riders think LYMMO has made downtown Orlando a more attractive place to live and work.

Table 6-7
LYMMO has made Downtown Orlando a more attractive place to live/work

| Strongly Agree | | Agree | | No Opinion | | Disagree | | Strongly Disagree | |
|----------------|-----|-------|-----|------------|-----|----------|----|-------------------|----|
| 431 | 46% | 311 | 33% | 166 | 18% | 23 | 2% | 7 | 1% |

Use of other LYNX services

In the 2001 survey, 54 percent of LYMMO riders said they did not use other LYNX services. In the 2012 survey, that percentage fell to 25 percent, meaning more riders today are using other LYNX services. The survey results are shown in Tables 6-8 and 6-9. LYNX offers more services now than it did in 2001, which may explain some of the change. For example, FastLink, NeighborLink, and KnightLYNX are all new services. FastLink is a limited stop service. NeighborLink is a flex service for riders in the less populated parts of LYNX's service area. KnightLYNX is a weekend service around the University of Central Florida campus.

Table 6-8
Do you use any other LYNX services? 2001 Survey

| LYNX Service | Percent |
|-------------------------------------|---------|
| Local bus | 41% |
| No, I don't use other LYNX services | 54% |
| A+ Link | 2% |
| Special event services | 2% |
| LYNX vanpool/schoolpool/carpool | 1% |
| Total | 100% |

Table 6-9
Do you use any other
LYNX services?
2012 Survey

| LYNX Service | Frequency | Percent |
|-------------------------------------|-----------|---------|
| Local bus | 595 | 49% |
| No, I don't use other LYNX services | 298 | 25% |
| FastLink | 89 | 7% |
| Access LYNX (formerly A+ Link) | 75 | 6% |
| Xpress bus | 65 | 5% |
| NeighborLink | 52 | 4% |
| KnightLYNX | 20 | 2% |
| LYNX vanpool | 11 | 1% |
| Total | 1,205 | 100.0% |

Results may not add to 100% due to rounding.

The percentage of LYMMO riders that said they also use LYNX local bus service increased from 2001 to 2012 (from 41% to 49%). A likely contributor is the LYNX Central Station, which was constructed in 2004. Prior to that, there was no direct connection between the old downtown bus depot and LYMMO. LYNX Central Station provides a direct connection to LYMMO, services nearly 30 bus routes, and is also a future station for the SunRail commuter train. A photo of Central Station is shown in Figure 6-2.

Figure 6-2
LYNX Central Station



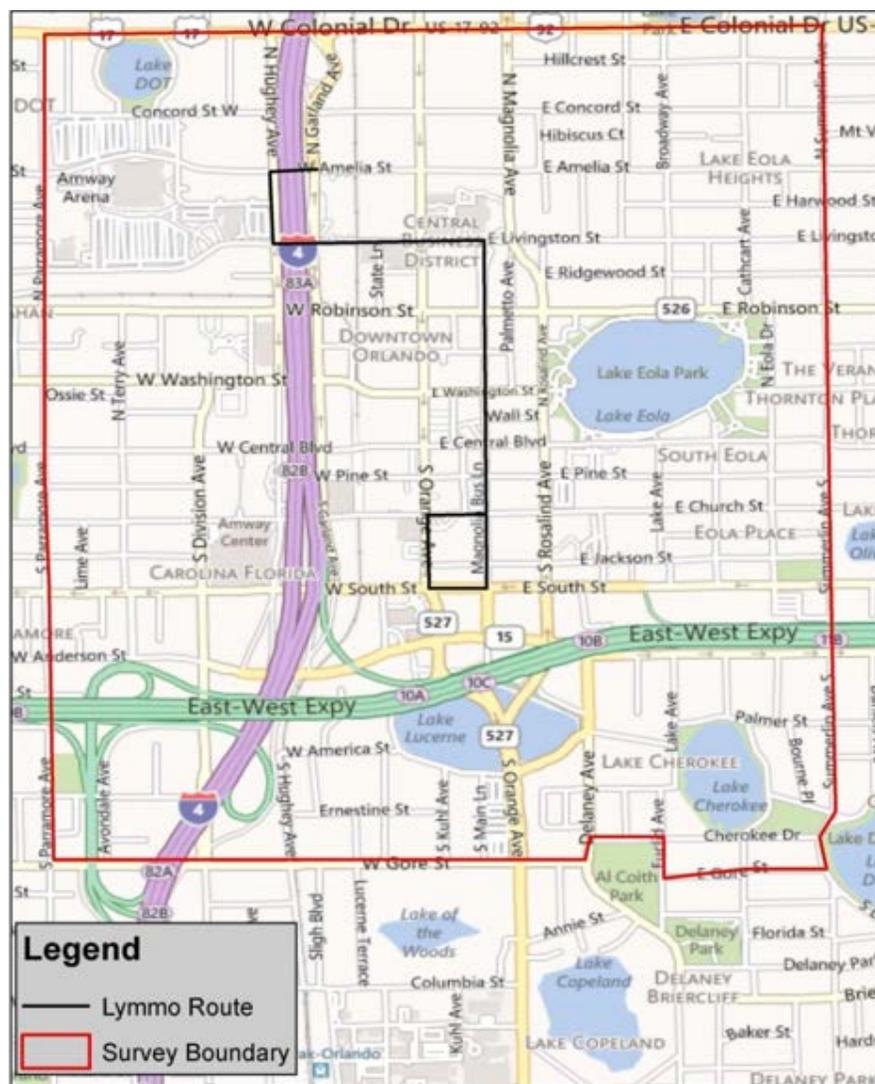
Source: Orlando Sentinel

SECTION
7

Employer Survey

A short six-question survey was mailed at the end of January 2013 to 711 employers in downtown Orlando using addresses provided by the City of Orlando. The employers were selected based on their location within a boundary of four streets: Colonial Drive on the north, Summerlin Avenue on the east, Gore Street on the south, and Parramore Avenue on the west. A map of these boundaries is shown in Figure 7-1.

Figure 7-1
LYMMO Employer
Survey Boundary



A copy of the employer survey can be found in Appendix C. It included questions about whether LYMMO was a factor in a company's decision to locate and/or stay in downtown. It also asked business owners whether they thought LYMMO contributed to the economic development of downtown, made downtown a more attractive place to live and work, and improved mobility in downtown.

Unfortunately, the response was low. Of the 711 employers surveyed, only 34 (5%) responded. Therefore, the results cannot be considered statistically conclusive. The responses are provided only for illustrative purposes.

Influence of LYMMO on employers' decision to locate and/or remain downtown

The first three survey questions asked employers whether they located in downtown before or after LYMMO began service, whether LYMMO was a factor in their decision to locate downtown, and whether LYMMO is a factor in their decision to remain in downtown. The percentage of responding employers that located downtown prior to LYMMO starting was slightly higher than the percentage of employers that located after it began (53% vs.47%; see Table 7-1). Only 3 of the 34 companies (9%) said LYMMO was a factor in their decision to locate downtown. Interestingly, one of those three located in downtown before LYMMO began service; perhaps this employer located in downtown in anticipation of LYMMO opening. Five of the 34 companies (15%) responded that LYMMO is a factor in their decision to remain downtown.

Table 7-1

Did your company locate in downtown before or after LYMMO began service?

| | Frequency | Percent |
|--------------------|-----------|---------|
| Before LYMMO began | 18 | 53% |
| After LYMMO began | 16 | 47% |

Table 7-2

Was LYMMO a factor in your company's decision to locate and remain downtown?

| Question | Response | Frequency | Percent |
|----------------------------|----------|-----------|---------|
| Factor locating downtown? | Yes | 3 | 9% |
| | No | 30 | 91% |
| Factor remaining downtown? | Yes | 5 | 15% |
| | No | 28 | 85% |

Employer perceptions of LYMMO

Employers were presented with three statements regarding LYMMO and were asked to register their level of agreement or disagreement with them. The statements pertained to LYMMO's contribution toward economic development, quality of life, and mobility in downtown Orlando. A majority of the employers agreed or strongly agreed that LYMMO has contributed to the economic development of downtown (53%) and made downtown a more attractive place to live and work (59%). There was even wider agreement that LYMMO has improved mobility in downtown (73%). Nevertheless, 6 of the 34 employers (18%) disagreed or strongly disagreed with these statements.

Table 7-3 *Employer Perceptions of LYMMO's Impact*

| Statement | Strongly Agree | | Agree | | No Opinion | | Disagree | | Strongly Disagree | |
|---|----------------|-----|-------|-----|------------|-----|----------|-----|-------------------|----|
| | N | % | N | % | N | % | N | % | N | % |
| LYMMO has contributed to the economic development of downtown. | 7 | 21% | 11 | 32% | 10 | 29% | 4 | 12% | 2 | 6% |
| LYMMO has made downtown a more attractive place to live and work. | 8 | 24% | 12 | 35% | 8 | 24% | 4 | 12% | 2 | 6% |
| LYMMO has improved mobility in downtown. | 13 | 38% | 12 | 35% | 3 | 9% | 4 | 12% | 2 | 6% |

Employer demographics

The survey asked how many employees were located at the mailed location and what type of business it was. Table 7-4 shows that more than half (59%) of the employers that responded were small businesses, with only 1–9 employees at that location. About one-third (33%) were consulting or engineering firms; another 15 percent were law firms.

Table 7-4

How many employees are at this location?

| Number of Employees | Frequency | Percent |
|---------------------|-----------|---------|
| 1–9 | 20 | 59% |
| 10–19 | 4 | 12% |
| 20–99 | 8 | 24% |
| 100–499 | 2 | 6% |

Table 7-5

*Which best describes
your business?*

| Business Type | Frequency | Percent |
|------------------------|-----------|---------|
| Consulting | 6 | 18% |
| Engineering/Consulting | 5 | 15% |
| Law Office | 5 | 15% |
| Real Estate | 4 | 12% |
| Arts/Entertainment | 2 | 6% |
| Restaurant | 2 | 6% |
| Other | 2 | 6% |
| Government | 1 | 3% |
| Non Profit | 1 | 3% |
| Financial | 1 | 3% |
| Insurance | 1 | 3% |
| IT Services | 1 | 3% |
| Software | 1 | 3% |
| Staffing | 1 | 3% |
| Total | 33 | 100% |

SECTION 8

Future Plans

LYNX plans to expand its LYMMO service and has selected three new corridors. Two of the new corridors are shown in red and yellow in Figure 8-1; the existing LYMMO route is shown in purple.

The first new corridor is the East/West LYMMO, shown in red. Its route will be 3.7 miles and will have 7 stations and 12 signed stops. Service frequency will be every 10 minutes during the peak and every 15 minutes during the off-peak. Unlike the existing LYMMO, the East/West LYMMO will provide service only in a single direction and will operate in a combination of mixed traffic and dedicated lanes with conditional transit signal priority (TSP) at 22 intersections. The estimated capital cost is \$9.9 million (2010 dollars), and the estimated operating cost is \$1 million annually.

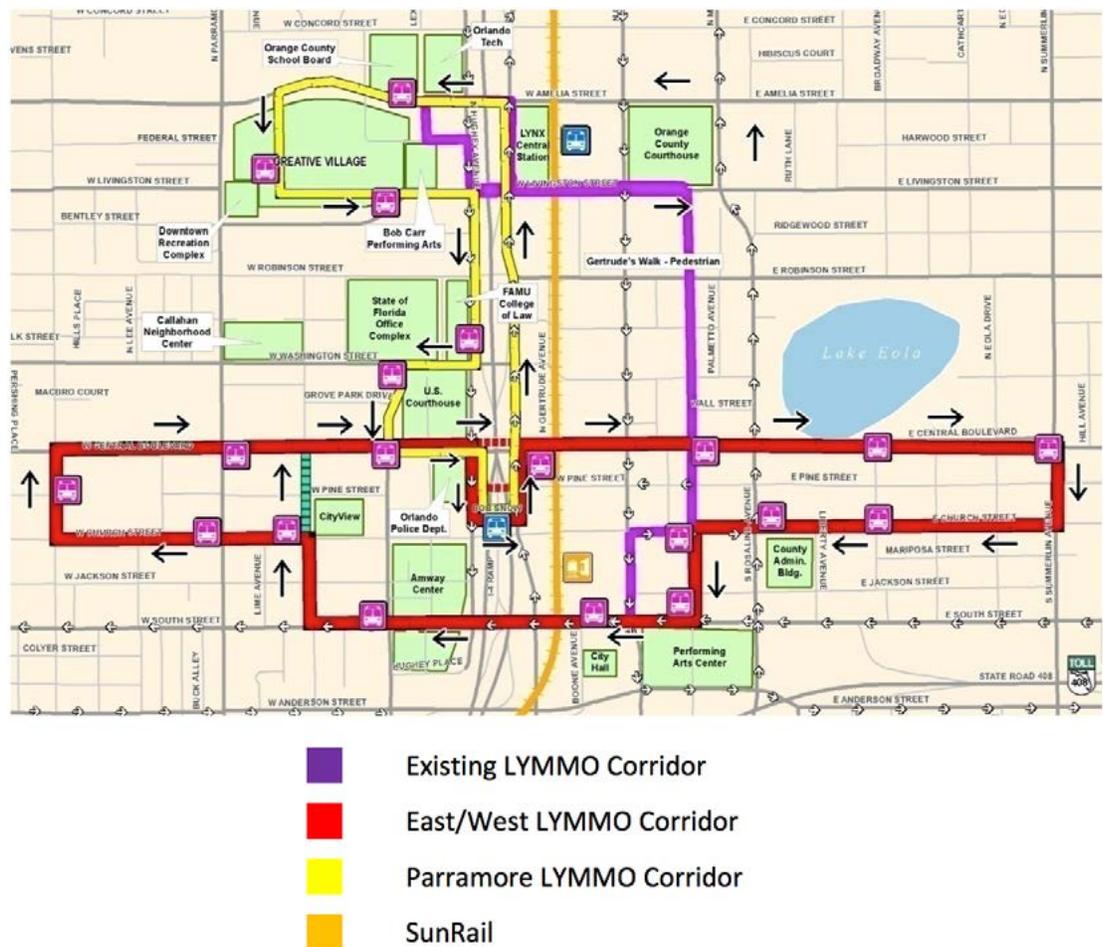


Figure 8-1 New LYMMO Corridors

The second new corridor is the Parramore/Creative Village LYMMO, shown in yellow. Basically, this is a 2.53-mile extension of the existing LYMMO line. It will operate in exclusive bus lanes and have 4 stations and 3 signed stops. One station will be located under I-4 and be a transfer point to the East-West BRT line and provide access to the Amway Center. The Parramore BRT will also provide service to the planned Creative Village located on the site of the former Amway Arena. Creative Village is a planned mixed-use development that includes 500 units of mixed-income housing, 400,000 square feet of office space, 250,000 square feet of education space, and associated community and commercial facilities. Other destinations to be served include Florida A&M College of Law, the State of Florida Office Complex, the U.S. Courthouse, and LYNX Central Station. The estimated capital cost is \$16 million (2011 dollars). The Parramore/Creative Village LYMMO will intersect with the East/West LYMMO.

Both of these projects are expected to open in spring 2014. The new LYMMO lines and the existing LYMMO will connect with the SunRail commuter rail (shown in orange) that is anticipated to open in early 2014.

The third new LYMMO corridor (not shown) is a North/South BRT route that will provide service between Florida Hospital and the Orlando Regional Medical Center. It is basically an extension of the first LYMMO, connecting both hospitals and key neighborhoods adjacent to the downtown core. However, this corridor project does not currently have funding for operations or final design. The City, LYNX, and MetroPlan Orlando (the Metropolitan Planning Organization) adopted the North and South alignments as Locally Preferred Alternatives (LPA). Preliminary design is beginning on the South LPA, and LYNX is working with the City and the Florida Department of Transportation (FDOT) to begin establishing dedicated right-of-way and station areas at key locations. The South alignment is listed as the state's first Strategic Intermodal System (SIS) connector facility.

LYMMO Ridership Data

August 1997–December 2012

| Month | Avg. Weekday | Avg. Saturday | Avg. Sunday | Total Month |
|--------|--------------|---------------|-------------|-------------|
| Aug-97 | 2,660 | 874 | 450 | 61,150 |
| Sep-97 | 2,627 | 772 | 628 | 61,384 |
| Oct-97 | 3,260 | 1,029 | 640 | 81,657 |
| Nov-97 | 3,406 | 1,067 | 711 | 74,310 |
| Dec-97 | 3,502 | 1,063 | 505 | 83,810 |
| Jan-98 | 3,693 | 1,134 | 583 | 86,130 |
| Feb-98 | 4,140 | 1,197 | 560 | 89,833 |
| Mar-98 | 4,204 | 1,266 | 845 | 101,772 |
| Apr-98 | 4,427 | 1,444 | 607 | 105,600 |
| May-98 | 3,998 | 1,028 | 537 | 88,328 |
| Jun-98 | 4,079 | 795 | 433 | 94,657 |
| Jul-98 | 4,051 | 927 | 651 | 99,213 |
| Aug-98 | 4,359 | 740 | 452 | 97,502 |
| Sep-98 | 4,200 | 1,009 | 556 | 95,009 |
| Oct-98 | 4,439 | 1,392 | 912 | 108,276 |
| Nov-98 | 3,978 | 1,031 | 747 | 88,162 |
| Dec-98 | 3,530 | 850 | 481 | 83,456 |
| Jan-99 | 4,155 | 1,218 | 532 | 92,384 |
| Feb-99 | 4,428 | 1,368 | 876 | 97,536 |
| Mar-99 | 4,509 | 1,316 | 962 | 112,825 |
| Apr-99 | 4,418 | 1,333 | 774 | 105,627 |
| May-99 | 4,154 | 803 | 518 | 90,197 |
| Jun-99 | 4,044 | 1,073 | 460 | 95,104 |
| Jul-99 | 3,802 | 855 | 468 | 89,778 |
| Aug-99 | 4,133 | 827 | 475 | 96,600 |
| Sep-99 | 4,028 | 805 | 404 | 85,795 |
| Oct-99 | 4,071 | 703 | 506 | 91,537 |
| Nov-99 | 4,060 | 866 | 659 | 92,007 |
| Dec-99 | 3,538 | 873 | 472 | 86,346 |
| Jan-00 | 4,057 | 1,097 | 619 | 93,295 |
| Feb-00 | 4,398 | 1,099 | 610 | 99,197 |
| Mar-00 | 4,335 | 1,556 | 753 | 108,944 |
| Apr-00 | 4,192 | 1,229 | 630 | 93,127 |
| May-00 | 4,078 | 771 | 597 | 95,783 |
| Jun-00 | 4,174 | 769 | 430 | 96,631 |
| Jul-00 | 3,877 | 856 | 615 | 85,501 |

APPENDIX A: LYMMO RIDERSHIP DATA, AUGUST 1997–DECEMBER 2012

| Month | Avg. Weekday | Avg. Saturday | Avg. Sunday | Total Month |
|--------|--------------|---------------|-------------|-------------|
| Aug-00 | 4,182 | 692 | 771 | 102,034 |
| Sep-00 | 4,332 | 944 | 436 | 93,548 |
| Oct-00 | 4,147 | 955 | 720 | 98,640 |
| Nov-00 | 4,028 | 1,012 | 683 | 92,042 |
| Dec-00 | 3,407 | 911 | 472 | 75,533 |
| Jan-01 | 3,735 | 1,281 | 500 | 89,790 |
| Feb-01 | 3,976 | 1,145 | 757 | 87,118 |
| Mar-01 | 3,810 | 1,251 | 658 | 92,709 |
| Apr-01 | 3,984 | 1,360 | 679 | 92,498 |
| May-01 | 3,800 | 1,007 | 530 | 90,267 |
| Jun-01 | 3,896 | 656 | 465 | 86,953 |
| Jul-01 | 3,771 | 794 | 601 | 85,977 |
| Aug-01 | 3,949 | 767 | 540 | 96,056 |
| Sep-01 | 4,138 | 757 | 490 | 85,340 |
| Oct-01 | 4,183 | 750 | 460 | 101,046 |
| Nov-01 | 3,843 | 1,044 | 420 | 86,980 |
| Dec-01 | 3,427 | 649 | 378 | 74,047 |
| Jan-02 | 3,740 | 924 | 482 | 88,393 |
| Feb-02 | 3,890 | 853 | 539 | 83,365 |
| Mar-02 | 3,753 | 747 | 476 | 84,921 |
| Apr-02 | 3,997 | 765 | 496 | 92,968 |
| May-02 | 3,912 | 882 | 499 | 92,081 |
| Jun-02 | 3,632 | 744 | 438 | 78,540 |
| Jul-02 | 3,447 | 765 | 595 | 81,857 |
| Aug-02 | 4,080 | 516 | 577 | 94,640 |
| Sep-02 | 4,137 | 709 | 439 | 88,213 |
| Oct-02 | 4,215 | 766 | 445 | 101,793 |
| Nov-02 | 4,013 | 825 | 584 | 87,311 |
| Dec-02 | 3,616 | 707 | 458 | 81,507 |
| Jan-03 | 3,757 | 785 | 411 | 83,857 |
| Feb-03 | 4,360 | 1,036 | 651 | 93,946 |
| Mar-03 | 4,374 | 1,063 | 544 | 99,896 |
| Apr-03 | 3,972 | 828 | 641 | 93,262 |
| May-03 | 4,319 | 1,066 | 651 | 99,285 |
| Jun-03 | 4,184 | 867 | 568 | 94,171 |
| Jul-03 | 4,231 | 782 | 642 | 99,408 |
| Aug-03 | 4,182 | 822 | 541 | 94,631 |
| Sep-03 | 4,136 | 829 | 511 | 92,732 |
| Oct-03 | 4,183 | 819 | 641 | 102,052 |
| Nov-03 | 3,999 | 877 | 455 | 83,104 |
| Dec-03 | 3,472 | 848 | 430 | 81,924 |

APPENDIX A: LYMMO RIDERSHIP DATA, AUGUST 1997–DECEMBER 2012

| Month | Avg. Weekday | Avg. Saturday | Avg. Sunday | Total Month |
|--------|--------------|---------------|-------------|-------------|
| Jan-04 | 3,796 | 834 | 482 | 86,294 |
| Feb-04 | 3,870 | 760 | 587 | 83,373 |
| Mar-04 | 3,859 | 991 | 800 | 95,922 |
| Apr-04 | 3,685 | 814 | 487 | 86,262 |
| May-04 | 4,064 | 785 | 609 | 88,849 |
| Jun-04 | 3,897 | 735 | 493 | 90,653 |
| Jul-04 | 3,590 | 703 | 523 | 84,594 |
| Aug-04 | 3,354 | 523 | 402 | 76,966 |
| Sep-04 | 3,446 | 590 | 498 | 75,624 |
| Oct-04 | 3,908 | 732 | 609 | 88,774 |
| Nov-04 | 3,978 | 1,054 | 717 | 91,349 |
| Dec-04 | 3,713 | 1,357 | 591 | 92,433 |
| Jan-05 | 4,182 | 1,623 | 745 | 98,789 |
| Feb-05 | 4,544 | 1,440 | 821 | 99,916 |
| Mar-05 | 4,089 | 1,539 | 854 | 103,613 |
| Apr-05 | 4,595 | 1,294 | 867 | 106,431 |
| May-05 | 4,201 | 1,315 | 651 | 97,391 |
| Jun-05 | 4,065 | 1,093 | 679 | 96,514 |
| Jul-05 | 4,234 | 1,205 | 836 | 95,721 |
| Aug-05 | 4,433 | 1,373 | 763 | 110,496 |
| Sep-05 | 4,517 | 1,447 | 756 | 104,413 |
| Oct-05 | 4,176 | 1,469 | 738 | 98,726 |
| Nov-05 | 4,178 | 1,562 | 719 | 97,582 |
| Dec-05 | 3,091 | 895 | 676 | 74,498 |
| Jan-06 | 3,720 | 1,387 | 713 | 90,962 |
| Feb-06 | 4,264 | 1,181 | 809 | 93,232 |
| Mar-06 | 4,145 | 1,497 | 870 | 104,808 |
| Apr-06 | 4,298 | 1,377 | 820 | 96,949 |
| May-06 | 4,254 | 1,116 | 823 | 102,166 |
| Jun-06 | 4,256 | 1,228 | 770 | 101,618 |
| Jul-06 | 4,291 | 1,299 | 891 | 97,651 |
| Aug-06 | 4,523 | 1,135 | 824 | 111,862 |
| Sep-06 | 4,689 | 1,206 | 802 | 103,823 |
| Oct-06 | 3,822 | 1,112 | 753 | 92,308 |
| Nov-06 | 4,339 | 1,847 | 862 | 102,808 |
| Dec-06 | 4,348 | 1,824 | 691 | 100,230 |
| Jan-07 | 4,154 | 1,634 | 917 | 102,502 |
| Feb-07 | 4,089 | 2,505 | 861 | 95,244 |
| Mar-07 | 4,053 | 1,326 | 807 | 99,012 |
| Apr-07 | 3,897 | 1,780 | 862 | 93,260 |
| May-07 | 3,933 | 1,091 | 667 | 94,228 |

APPENDIX A: LYMMO RIDERSHIP DATA, AUGUST 1997–DECEMBER 2012

| Month | Avg. Weekday | Avg. Saturday | Avg. Sunday | Total Month |
|--------|--------------|---------------|-------------|-------------|
| Jun-07 | 3,800 | 984 | 704 | 87,540 |
| Jul-07 | 3,756 | 1,158 | 818 | 88,422 |
| Aug-07 | 4,384 | 1,139 | 1,023 | 109,469 |
| Sep-07 | 4,554 | 1,341 | 989 | 99,154 |
| Oct-07 | 4,579 | 1,391 | 979 | 114,798 |
| Nov-07 | 3,958 | 1,686 | 964 | 94,685 |
| Dec-07 | 3,994 | 1,349 | 873 | 91,875 |
| Jan-08 | 7,164 | 3,055 | 2,166 | 99,272 |
| Feb-08 | 4,279 | 1,144 | 958 | 98,266 |
| Mar-08 | 4,283 | 1,791 | 1,015 | 103,967 |
| Apr-08 | 4,251 | 1,267 | 1,000 | 102,589 |
| May-08 | 4,125 | 1,495 | 822 | 98,204 |
| Jun-08 | 3,905 | 1,148 | 847 | 90,840 |
| Jul-08 | 3,933 | 1,059 | 920 | 98,374 |
| Aug-08 | 3,469 | 1,097 | 972 | 83,201 |
| Sep-08 | 3,863 | 1,264 | 1,033 | 94,166 |
| Oct-08 | 4,235 | 1,141 | 817 | 105,234 |
| Nov-08 | 3,948 | 1,519 | 850 | 87,718 |
| Dec-08 | 3,674 | 1,175 | 1,063 | 90,839 |
| Jan-09 | 4,112 | 1,199 | 829 | 96,493 |
| Feb-09 | 4,734 | 1,222 | 1,157 | 104,201 |
| Mar-09 | 4,448 | 1,318 | 1,139 | 108,814 |
| Apr-09 | 4,869 | 1,219 | 1,205 | 116,807 |
| May-09 | 5,051 | 1,631 | 1,324 | 117,118 |
| Jun-09 | 4,433 | 1,634 | 1,726 | 110,958 |
| Jul-09 | 4,285 | 1,260 | 1,019 | 107,677 |
| Aug-09 | 4,636 | 1,849 | 1,464 | 113,928 |
| Sep-09 | 4,083 | 1,112 | 782 | 97,397 |
| Oct-09 | 4,382 | 1,137 | 836 | 105,428 |
| Nov-09 | 3,742 | 1,258 | 787 | 87,542 |
| Dec-09 | 3,445 | 1,674 | 942 | 89,711 |
| Jan-10 | 4,111 | 1,965 | 999 | 98,032 |
| Feb-10 | 3,546 | 1,442 | 1,376 | 82,188 |
| Mar-10 | 3,985 | 2,524 | 1,710 | 108,593 |
| Apr-10 | 4,515 | 2,416 | 1,374 | 114,484 |
| May-10 | 4,486 | 2,109 | 999 | 106,254 |
| Jun-10 | 3,971 | 1,853 | 780 | 97,892 |
| Jul-10 | 3,969 | 1,997 | 987 | 101,257 |
| Aug-10 | 4,036 | 1,394 | 768 | 98,219 |
| Sep-10 | 3,925 | 859 | 1,050 | 91,112 |
| Oct-10 | 4,404 | 1,439 | 882 | 104,083 |

APPENDIX A: LYMMO RIDERSHIP DATA, AUGUST 1997–DECEMBER 2012

| Month | Avg. Weekday | Avg. Saturday | Avg. Sunday | Total Month |
|--------|--------------|---------------|-------------|-------------|
| Nov-10 | 4,509 | 1,030 | 868 | 103,140 |
| Dec-10 | 3,348 | 1,248 | 807 | 84,775 |
| Jan-11 | 3,267 | 1,386 | 942 | 79,809 |
| Feb-11 | 3,178 | 1,313 | 956 | 72,642 |
| Mar-11 | 3,201 | 1,289 | 908 | 82,411 |
| Apr-11 | 3,412 | 1,311 | 972 | 82,094 |
| May-11 | 3,352 | 1,277 | 1,005 | 81,526 |
| Jun-11 | 3,324 | 1,441 | 1,115 | 83,348 |
| Jul-11 | 3,230 | 1,352 | 1,195 | 78,536 |
| Aug-11 | 3,289 | 1,292 | 1,187 | 85,554 |
| Sep-11 | 3,241 | 1,327 | 986 | 78,289 |
| Oct-11 | 3,333 | 1,250 | 974 | 81,115 |
| Nov-11 | 3,096 | 1,272 | 977 | 74,997 |
| Dec-11 | 2,818 | 1,093 | 792 | 70,620 |
| Jan-12 | 2,890 | 1,281 | 896 | 73,192 |
| Feb-12 | 3,045 | 1,325 | 904 | 72,865 |
| Mar-12 | 2,837 | 1,209 | 915 | 72,108 |
| Apr-12 | 3,026 | 1,115 | 995 | 72,986 |
| May-12 | 3,206 | 1,174 | 864 | 79,549 |
| Jun-12 | 3,073 | 1,307 | 903 | 74,688 |
| Jul-12 | 3,211 | 1,279 | 1,151 | 79,452 |
| Aug-12 | 3,389 | 1,344 | 980 | 87,248 |
| Sep-12 | 3,246 | 1,337 | 1,076 | 74,803 |
| Oct-12 | 3,026 | 1,641 | 779 | 79,272 |
| Nov-12 | 2,738 | 1,405 | 804 | 67,129 |
| Dec-12 | 2,517 | 1,113 | 856 | 61,048 |

LYMMO Boarding and Alighting Data

2003 and 2012

| Destination | Stop Number | Stop Location | 2003 | | 2012 | |
|---------------------------------|-------------|---------------------------|---------------|-------------|--------------|-------------|
| | | | Total On/Off | Percent | Total On/Off | Percent |
| CentroPlex Garage | 6316 | 400 AMELIA ST | 892 | 6% | 838 | 11% |
| CentroPlex Garage | 7196 | 400 HUGHEY AVE AND LIVING | 1,193 | 8% | 20 | 0% |
| LYNX Central Station | 7197 | 100 LIVINGSTON ST AND N G | n/a | n/a | 1,048 | 14% |
| LYNX Central Station | 7198 | 100 LIVINGSTON ST AND N G | 1,181 | 7% | 905 | 12% |
| LYNX Central Station | 7199 | 455 N GARLAND AVE AND AME | 1,166 | 7% | 49 | 1% |
| Bank of America | 6299 | LIVINGSTON ST AND ORANGE | 1,184 | 7% | 108 | 1% |
| Bank of America | 6311 | 1 LIVINGSTON ST AND ORANG | 1,131 | 7% | 97 | 1% |
| Orange County Courthouse | 5887 | 1 LIVINGSTON ST AND MAGNO | 986 | 6% | 439 | 6% |
| Orange County Courthouse | 6298 | LIVINGSTON ST AND ORANGE | 1,135 | 7% | 482 | 6% |
| St. Luke & St. James Cathedrals | 6300 | 200 MAGNOLIA AVE AND JEFF | 980 | 6% | 302 | 4% |
| St. Luke & St. James Cathedrals | 6301 | 200 MAGNOLIA AVE AND JEFF | 872 | 6% | 310 | 4% |
| Comerica Bank | 6302 | 100 MAGNOLIA AVE AND WASH | 915 | 6% | 103 | 1% |
| Comerica Bank | 6303 | 100 MAGNOLIA AVE AND WASH | 874 | 6% | 87 | 1% |
| Orange Public Library | 6304 | MAGNOLIA AVE AND CENTRAL | 471 | 3% | 911 | 12% |
| Orange Public Library | 6305 | MAGNOLIA AVE AND CENTRAL | 841 | 5% | 911 | 12% |
| Seaside Bank | 6306 | 200 MAGNOLIA AVE AND CHUR | 397 | 3% | 142 | 2% |
| Seaside Bank | 6307 | CHURCH ST AND MAGNOLIA AV | 462 | 3% | 55 | 1% |
| First United Methodist | 6308 | 300 MAGNOLIA AVE AND SOUT | 405 | 3% | 69 | 1% |
| Grand Bohemian Hotel | 6309 | SOUTH ST AND ORANGE AVE | 368 | 2% | 360 | 5% |
| Seaside Bank | 6310 | 300 ORANGE AVE AND CHURCH | 362 | 2% | 454 | 6% |
| TOTAL ON/OFFS | | | 15,815 | 100% | 7,690 | 100% |

APPENDIX
D

Employer Survey 2012





It's hard to believe
it's been 15 years
since Lymmo began
running in 1997.

The Center for Urban Transportation
Research at the University of South
Florida is conducting a survey of
downtown Orlando business owners to
ask what they think of Lymmo.

We'd love to get your feedback. Simply
fill out the short survey and drop it in the
mail. No need to add postage.




1. The Lymmo began service in August 1997. Before After
 Did your company locate in downtown before or after that time?

2. Was the Lymmo a factor in your company's decision to locate downtown? Yes No

3. Is the Lymmo a factor in your company's decision to remain downtown? Yes No

4. How much would you agree or disagree with the following statements?

| | Strongly Agree | Agree | No Opinion | Disagree | Strongly Disagree |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| The Lymmo has contributed to the economic development of downtown | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |
| The Lymmo has made downtown a more attractive place to live and work | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |
| The Lymmo has improved mobility in downtown | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |

5. How many employees are at this location?
 1-9 10-19 20-99 100-499 Over 500

6. Which best describes your business?

| | | |
|--|--|---------------------------------------|
| <input type="checkbox"/> Arts/Entertainment | <input type="checkbox"/> Government | <input type="checkbox"/> Non Profit |
| <input type="checkbox"/> Banking | <input type="checkbox"/> Hotel | <input type="checkbox"/> Real Estate |
| <input type="checkbox"/> Church | <input type="checkbox"/> Law Office | <input type="checkbox"/> Restaurant |
| <input type="checkbox"/> Consulting | <input type="checkbox"/> Medical | <input type="checkbox"/> Retail |
| <input type="checkbox"/> Engineering/Architectural | <input type="checkbox"/> News/Publishing | <input type="checkbox"/> Other: _____ |



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